REMARKS

Prior to this Reply, Claims 1, 3, 5, 6, 30, 32, 34-36 and 40-100 were pending. Through this Reply, Claims 1, 3, 5 and 6 have been cancelled. Accordingly, Claims 30, 32, 34-36 and 40-100 are now at issue in the present case.

I. Allowable Subject Matter

The Examiner stated that Claims 30, 32, 34-36 and 40-100 are allowed.

II. Rejections Under 35 U.S.C. § 102(e)

The Examiner rejected Claims 1, 3, 5 and 6 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,693,760 to Krounbi et al.

Claims 1, 3, 5 and 6 have been cancelled without prejudice to, or disclaimer of, the subject matter contained therein.

III. Amendments to Specification

A substitute specification without claims (and a marked-up version thereof) is provided herein under 37 C.F.R. 1.125 to improve clarity of the specification. No new matter has been added.

Applicants respectfully request that the substitute specification be entered.

IV. Amendments to Drawings

Applicants are submitting replacement Figures 1-3, 4A, 4B, 5A, 5B, 6-13, 14A, 14B and 15 (contained on Replacement Sheets 1-15) to improve the quality of the drawings.

Figure 1 has been modified to clarify computer system 10, CPU 12, main memory 14, I/O bus adapter 16, system bus 18, I/O bus 20, peripheral device 22, disk drive 24 and drive controller 26.

Figure 2 has been modified to clarify I/O bus 20, drive controller 26, servo controller 32, read/write channel 34, bus 36 and data buffer bus 38.

Figure 3 has been added to show disk drive 24, HDA 28, disks 40, transducer heads 42, carrier arms 44, hub 46, spindle motor 48, actuator 50 and disk surfaces 52.

Figures 4A and 4B are original Figure 3 as renumbered and modified to clarify I/O bus 20, drive controller 26, servo controller 32, read/write channel 34, bus 36, data buffer bus 38, transducer heads 42, actuator 50, power circuit 54, multiplexer 56, pattern generator 58, clock multiplier and PLL 60, ROM 62, registers 64, servo processor 66, servo control interface 68, read/write interface 70, serial interface 72, AGC/filter 74, pulse detector 76, PRML circuit 78, servo demodulator and ADC 80, signal controller 82, DAC 84, driver 86, preamplifier 88, mode controller 90, interface register 92, read select register 94, write select register 96, mode register 98, read multiplexer 100, write multiplexer 102, read circuit 104, write circuit 106, head interface 108, MR reader 110, writer 112, clock/data line 114, R/W select line 116, read head select line 118, read enable line 120, write head select line 122, write enable line 124, read data lines 126, differential read data lines 128, differential write data lines 130 and write data lines 132.

Figures 5A and 5B are original Figure 4 as renumbered and modified to clarify transducer heads 42A, 42B, 42C and 42D, preamplifier 88, mode controller 90, read circuits 104A, 104B, 104C and 104D, write circuits 106A, 106B, 106C and 106D, head interfaces 108A, 108B, 108C and 108D, clock/data line 114, R/W select line 116, read data lines 126, differential read data

lines 128, differential write data lines 130, write data lines 132, read control lines 134A, 134B, 134C and 134D and write control lines 136A, 136B, 136C and 136D.

Figure 6 has been modified to clarify reference disk 40A, disk surface 52A, magnetic printing station 140 and reference pattern 142.

Figure 7 has been added to show reference disk 40A, transducer head 42, disk surface 52A and reference pattern 142.

Figure 8 is original Figure 10A as renumbered and modified to clarify reference pattern 142, sector spoke 144, reference spoke 146, transfer fields 148, the gray code field, the servo burst quadrature pattern field, the servo burst pseudo-quadrature pattern field and the A1 and B1 servo bursts.

Figure 9 is original Figure 7 as renumbered and modified to clarify disk drive 24, drive controller 26, disks 40A and 40B, transducer heads 42, carrier arms 44, hub 46, spindle motor 48, actuator 50, disk surfaces 52A and 52B, self-scan station 150 and interconnection 152.

Figure 10 is original Figure 8 as renumbered and modified to clarify disk drive 24, drive controller 26, servo controller 32, read/write channel 34, disks 40A and 40B, transducer head 42, carrier arm 44, hub 46, spindle motor 48, actuator 50, disk surfaces 52A and 52B, power circuit 54, pattern generator 58, clock multiplier and PLL 60, registers 64, servo processor 66, servo control interface 68, AGC/filter 74, pulse detector 76, PRML circuit 78, servo demodulator and ADC 80, preamplifier 88, differential read data lines 128 and differential write data lines 130.

Figure 11 is original Figure 10B as renumbered and modified to clarify servo controller 32, transducer head 42, actuator 50, servo processor 66, servo demodulator and ADC 80, DAC 84, driver 86 and head position servo loop 154.

Figure 12 is original Figure 11 as renumbered and modified to clarify disk drive 24, drive controller 26, disk 40, pattern generator 58, clock multiplier and PLL 60, AGC/filter 74, pulse detector 76, preamplifier 88, pattern memory 156 and shift register 158.

Figure 13 is original Figure 12 as renumbered and modified to clarify disk surfaces 52A and 52B, reference pattern 142, sector spoke 144, reference spoke 146, transfer fields 148 and servo patterns 160 and to delete the text.

Figures 14A and 14B are original Figures 9A and 9B as renumbered and modified to capitalize various terms and at step 200 to change "media surface" to "Disk" and to delete "Printed Media Reference Disk Position/Timing" and at step 202 to delete "assembly" and at step 204 to change "Integrate Drive/Electronics Attach" to "Install" and "Electronics to" to "Controller into Disk" and to delete "assembly" and at step 206 to change "Install" to "Place Disk" and "into" to "in" and "rack" to "Station" and at step 208 to change "On" to "Up Disk" and at step 210 to insert "Disk" after "up" and at step 212 to change "drive at correct" to "Disk Rotational" and at step 214 to insert "Disk Rotational" after "correct" and to delete "Drive speed at" and at step 216 to change "Servowrite" to "Servo Write" and at step 218 to change "Execute SSW Program from the Memory/ Firmware" to "Execute Firmware and Load Registers" and at step 220 to change "Move heads" to "Position Transducer Head" and "printed" to "Reference" and at step 222 to change "Preamp" to "Preamplifier" and to delete "normal" and at step 224 to change "Read" to "Transducer" and "that corresponds to reference" to "Disk" and to insert "with Reference Pattern" after "surface" and at step 226 to change "Radial" to "Absolute" and at step 230 to change "Read Head" to "Transducer Heads" and at step 232 to change "position ?" to "Position?" and at step 234 to insert "servo" after "Load" and at step 238 to change "Locked ?" to "Locked?" and at step 240 to change "writer" to "Transducer" and at step 242 to change

"Writer Head" to "Transducer Heads for Writing" and at step 244 to change "Select" to "Set Preamplifier to" and to delete "in preamp circuit" and at step 246 to change "Sync. Start SSW Pattern Write to" to "Synchronize Servo Pattern With Index" and at step 248 to change "Spoke ?" to "Spoke?" and to insert "Reference" after "Index" and at step 250 to insert "Reference Spoke" after "load" and "Reference" after "of" and at step 254 to change insert "Selected Transducer" after "Write" and at step 256 to insert "Transfer Field" after "Load" and "Reference" after "between" and at step 262 to change "0 ?" to "0?" and at step 264 to insert "Transducer" before both instances of "head" and at step 266 of change "on" to "using Write" and "write" to "Transducer" and to delete "Final" and at step 270 to insert "Selected Transducer" after "Write" and at step 272 to insert "Transfer Field" after "Decrement" and to delete "Number of transfer fields – 1" and at step 274 to delete "# of" and at step 278 to delete "Number" and at step 280 to insert "Reference Spoke" after "Decrement" and to delete "Number of spokes – 1" and at step 282 to insert "Reference" before "Spoke" and to change "0 ?" to "0?" and at step 284 to change "radial location" to "track" and to insert "Transducer Heads" after "Move" and at step 288 to delete "Process."

Figure 15 is original Figure 13 as renumbered and modified to renumber steps 295, 296, 297 and 298 as steps 296, 298, 300 and 302, respectively, to label step 304 and to delete step 288 and the text/view outside the flow chart and to capitalize various terms and at step 292 to change "Enable" to "Set Preamplifier to" and to delete "in Preamplifier" and at step 294 to change "on 1st" to "using Selected Transducer" and at step 296 to change "data" to "Servo Patterns" and to insert "Transducer" after ""other" and to delete "(bank or stagger)" and at step 298 to change "data" to "Servo Patterns" and "1st" to "Selected Transducer" and at step 300 to change "Find" to "Move Transducer Heads to" and to delete "location (moving actuator in)."

Figures 5 (original) and 10C (original) have been deleted.

No new matter has been added. Figures 1-3, 4A, 4B, 5A, 5B, 6-13, 14A, 14B and 15 constitute all of the drawings of the application.

V. Additional Claim Fees

In determining whether additional claim fees are due, reference is made to the Fee Calculation Table (below).

Fee Calculation Table

	Claims Remaining After Amendment		Highest Number Previously Paid For	Present Extra	Rate	Additional Fee
Total (37 CFR 1.16(c))	66	Minus	70	= 0	x $50 =	$0.00
Independent (37 CFR 1.16(b))	12	Minus	13	= 0	x $200 =	$0.00

As set forth in the Fee Calculation Table (above), Applicants previously paid claim fees for seventy (70) total claims and for thirteen (13) independent claims. Accordingly, Applicants believe that no additional fees are due. Nevertheless, Applicants hereby authorize the Commissioner to charge Deposit Account No. 50-2198 for any fee deficiencies associated with filing this paper.

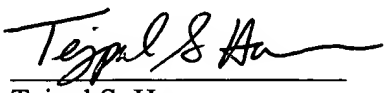
VI. Conclusion

It is believed the above comments establish patentability. Applicants do not necessarily accede to the assertions and statements in the Office Action, whether or not expressly addressed.

Applicants believe that the application appears to be in form for allowance. Accordingly, reconsideration and allowance thereof is respectfully requested.

The Examiner is invited to contact the undersigned at the below-listed telephone number regarding any matters relating to the present application.

Respectfully submitted,



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